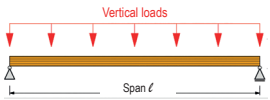
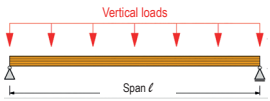
PRE-SIZING TABLE

SECTION B/H FOR VERIFYING FITNESS FOR SERVICE FOR NON-DEFORMATION SENSITIVE ELEMENTS; w < ℓ/350

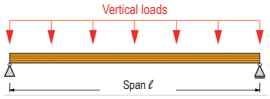
Light construction	g_k	**0.8 kN/m²**																				
Residential cat. A1	q_k	**2.0 kN/m²**																				
Span ℓ (m)		4.00			4.50			5.00			5.50			6.00			6.50			7.00		
Center distance (m)		0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70
Width / Height (mm)	100	200	200	200	200	240	240	240	240	280	280	280	280	280	280	320	320	320	320	320	360	360
	120	200	200	200	200	200	240	240	240	240	240	280	280	280	280	280	280	320	320	320	320	360
	140	160	200	200	200	200	200	200	240	240	240	240	280	240	280	280	280	280	320	280	320	320
	160	160	160	200	200	200	200	200	200	240	240	240	240	240	240	280	280	280	280	280	280	320
	180				200	200	200	200	200	240	200	240	240	240	240	280	240	280	280	280	280	320
	200							200	200	200	200	240	240	240	240	240	240	240	280	280	280	280
	220													240	240	240	240	240	280	240	280	280
	240																240	240	240	240	280	280
	260																					280



Heavy construction	g_k	**1.6 kN/m²**																				
Residential cat. A1	q_k	**2.0 kN/m²**																				
Span ℓ (m)		4.00			4.50			5.00			5.50			6.00			6.50			7.00		
Center distance (m)		0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70
Width / Height (mm)	100	200	240	240	240	240	280	280	280	280	280	320	320	320	320	360	320	360	360	360	400	400
	120	200	200	240	240	240	240	240	280	280	280	280	320	280	320	320	320	320	360	360	360	400
	140	200	200	200	200	240	240	240	240	280	280	280	280	280	280	320	320	320	320	320	360	360
	160	200	200	200	200	240	240	240	240	240	240	280	280	280	280	320	280	320	320	320	320	360
	180	200	200	200	200	200	240	240	240	240	240	240	280	280	280	280	280	280	320	320	320	320
	200				200	200	200	200	240	240	240	240	240	240	280	280	280	280	320	280	320	320
	220										240	240	240	240	280	280	280	280	280	280	320	320
	240										240	240	240	240	240	280	240	280	280	280	280	320
	260																	280	280	280	280	280



Heavy construction	g_k	**1.6 kN/m²**																				
Residential cat. B	q_k	**3.0 kN/m²**																				
Span ℓ (m)		4.00			4.50			5.00			5.50			6.00			6.50			7.00		
Center distance (m)		0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70	0.50	0.60	0.70
Width / Height (mm)	100	240	240	240	240	280	280	280	280	320	320	320	320	320	360	360	360	360	400	360	400	440
	120	200	240	240	240	240	280	280	280	280	280	320	320	320	320	360	320	360	360	360	360	400
	140	200	200	240	240	240	240	240	280	280	280	280	320	280	320	320	320	320	360	360	360	360
	160	200	200	200	200	240	240	240	240	280	280	280	280	280	280	320	320	320	320	320	360	360
	180	200	200	200	200	240	240	240	240	240	240	280	280	280	280	320	280	320	320	320	320	360
	200	200	200	200	200	200	240	240	240	240	240	240	280	280	280	280	280	320	320	320	320	320
	220										240	240	280	240	280	280	280	280	320	280	320	320
	240													240	280	280	280	280	280	280	320	320
	260																280	280	280	280	280	320



Prerequisites

Loads g_k and q_k evenly distributed over the length and width of the beam. No point loads.
Single-span straight beams of constant rectangular cross-section.
Beams protected from the weather (moisture class 1).
Long-term effects due to creep are taken into account.
According to SIA standards

Application example

Living area (category A1) q_k= 2.0 kN/m². Light soil g_k= 0.8 kN/m². Span ℓ= 6.00 m,
Center distance a = 0.70 m
Suggested cross-section for BLC GL24h: 120x280 mm

This table is an aid to pre-dimensioning but does not replace a static calculation